We claim:

1.   An input device for scanning a biometric image, comprising:

a housing;

a scan head movably mounted to the housing;

a platen moveably mounted to the housing and the scan head for movement relative to the housing and the scan head between a first position and a second position; and

a biasing device configured to bias the platen toward the first position.

2.   The device of claim 1, further comprising an encoder target.

3.   The device of claim 1, wherein the biasing device is an extension spring.

4.   The device of claim 1, wherein the biometric image is a fingerprint.

5.   The device of claim 2, wherein the encoder target comprises a non-repeating pattern.

6.   The device of claim 2, wherein the encoder target is integrated into the platen.

7.   The device of claim 2, wherein the scan head is adaptive to capture a scan line as the platen is moved.

8.   The device of claim 2, wherein the scan head is configured to scan a pattern on the encoder target and to capture a scan line of the biometric image and the corresponding pattern on the encoder target.

9.   The device of claim 8, wherein the pattern on the encoder target is used to combine a series of scan lines to form an image representative of the biometric image.

Patent Application

Atty. Docket No.: 03797.00686
Client No. 306152.01

10.   The device of claim 9, wherein the biasing device is a coiled spring.

11.   An input device for scanning a biometric image, comprising:

a housing having an angled way;

a platen moveably mounted to the housing for movement between a first position and a second position, the platen being adaptive to receive the biometric image;

a scan head moveably mounted to the angled way, wherein movement of the platen causes the scan head to translate along the angled way; and

an encoder target.

12.   The device of claim 11, further comprising a spring, the spring biasing the scan head assembly against the platen so as to bias the platen toward the first position.

13.   The device of claim 11, wherein the scan head is configured to scan a pattern on the encoder target and to capture a scan line of the biometric image and the corresponding pattern on the encoder target.

14.   The device of claim 11, wherein a pattern on the encoder target is used to combine a series of scan lines to form an image representative of the biometric image.

15.   The device of claim 11, wherein a force applied to the platen is transferred to the scan head so as to direct the scan head to traverse the platen.

16.   The device of claim 13, wherein the pattern is used to combine a series of scan lines to form an image representative of the biometric image.

17.   The device of claim 12, further comprising a spring, the spring biasing the scan head assembly against the platen so as to bias the platen toward the first position

18.   An input device for scanning a biometric image, comprising:

a housing;

a platen moveably mounted to the housing;

an encoder target associated with the platen; and

a scan head moveably mounted to the housing, wherein movement of the platen causes the scan head to traverse the platen such that the scan head can capture a scan line of the fingerprint image and a portion of a pattern on the encoder target.

19.   The device of claim 18, wherein a pattern on the encoder target is used to combine a series of scan lines to form an image representative of the biometric image.

20.   The device of claim 18, further comprising a biasing device, the biasing device configured to resist movement of the scan head from a first position to a second position.

21.   The device of claim 18, wherein the encoder target comprises a repeating pattern.

22.   The device of claim 18, wherein the platen provides a substantially flat contact surface for the biometric image.

23.   A method of scanning a biometric image with an input device having a platen and a housing, comprising:

capturing a series of scan lines of the biometric image as the platen translates relative to the housing; and

combining the series of scan lines to form an image representative of the biometric image.

24.   The method of claim 23, wherein the biometric image is a fingerprint.

25.   The method of claim 23, wherein the translation of the platen is caused by a user sliding the platen.

Patent Application

Atty. Docket No.: 03797.00686
Client No. 306152.01

26.   The method of claim 23, wherein the translation is vertical.

27.   The method of claim 23, further comprising the step of activating a scan head with movement of the platen.

28.   The method of claim 23, further comprising the step of notifying the user that the scan is complete.

29.   The method of claim 28, wherein the notification is done with an end of scan switch.

30.   The method of claim 29, further comprising the step of activating a scan head with movement of the platen, wherein the step of combining occurs on the input device.